

ABSTRACT

Disclosed is a method of forming an isolation film in a semiconductor device. The method comprises the steps of providing a semiconductor substrate having a region where a P well will be formed and a region where a
5 N well will be formed, forming an oxide film and a nitride film on the semiconductor substrate, removing portions of the nitride film and the oxide film and the semiconductor substrate below them to form first and second trenches in the region where the P well will be formed and the region where
10 the N well will be formed, respectively, implementing an epitaxial growth process including a doping process to form a N type epitaxial growth layer in the first trench and a P type epitaxial growth layer in the second trench, and burying the first and second trenches with insulating films to form an isolation film.